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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,038	12/16/1999	RONALD THOMAS KEEN	RCA89605	8392

7590

06/15/2004

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EXAMINER

YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

16

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/465,038

Applicant(s)

KEEN, RONALD THOMAS

Examiner

BRIAN P. YENKE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Appeal Brief 05 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. In view of the Appeal Brief filed on 05 April 2004, PROSECUTION IS
HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of
the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a
reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied
by a supplemental appeal brief, but no new amendments, affidavits (37 CFR
1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for
all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject
matter sought to be patented and the prior art are such that the subject matter as a whole
would have been obvious at the time the invention was made to a person having ordinary
skill in the art to which said subject matter pertains. Patentability shall not be negated
by the manner in which the invention was made.

Claims 1 and 25-26 rejected under 35 U.S.C. 103(a) as being
unpatentable over Martinez, US 5,812,184 in view of Henderson et al., US
4,106,059.

In considering claims 1 and 25-26

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a) *the claimed determining if said artifact...* Martinez discloses a system, which places additional data over a video signal, where the video/data signal can be processed and eliminating any effects from the data signal on the video presented. Martinez discloses a receiver 49 (Fig 7) of TRM 22 (Fig 5) where the selected frequency signal is sent to compressed video detector 50 and uncompressed to NTSC block 52 (Fig 7

b) *the claimed calculating a value for the frequency of said periodic signal...*

To properly cancel the effect of the additional data or any alien signal superimposed upon the waveform pedestal, the rate of the additional data must equal an odd harmonic of one-half the standard TV horizontal scan rate (col 9, line 28-48 and col 13, line 42-55) to visually cancel, and thus eliminate the artifact.

d) *the claimed setting said frequency of said periodic signal* is met by Martinez which discloses that any signal (in addition to video signal) that resides on the periodic video pedestal of 15,734 Hz which is intended to visually cancel must possess a fundamental frequency which an odd multiple of one-half the television horizontal (H-scan) frequency. An example given is the NTSC chrom-subcarrier of 3.579545 MHz is an odd multiple of one-half the horizontal scan rate, a multiple equal to 455. Thus any known frequency signal that is effecting the video passband of the video signal, as in the NTSC standard, can be eliminated/reduced. The component frequencies of the luminance signal are concentrated near a horizontal scanning frequency f_h and the higher harmonics

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nfh, whereas the component frequencies of the chrominance signal are concentrated in odd harmonics of $\frac{1}{2}$ fh.

However, Martinez does not specifically disclose rounding (c) *the claimed rounding the calculated value*. Martinez discloses the elimination of the data-over any alien signal imposed on a video signal by eliminating the odd harmonic of $\frac{1}{2}$ the horizontal frequency. The horizontal scan frequency of the NTSC video signal is 15,734.26573 Hz, thus by selecting ($n \times \frac{1}{2} \times 15,734.26573$) an odd harmonic (i.e. $n = 5$) of $\frac{1}{2}$ of the horizontal frequency results in a calculated frequency of approximately 39.336 kHz.

It is also noted by the examiner that the applicant's own disclosure, merely states in one sentence (page 3, line 23-26) "Thus, the particular selection of frequency of the interfering modulation signal of the spread spectrum clock was 39.336 kHz (2.5 multiplied by fh), which can be rounded up or down to the nearest integral kHz of 39 kHz or 40 kHz".

The examiner incorporates Henderson, which discloses a phase lock loop television tuning system which removes the effects/artifacts created by an unfiltered component of the local oscillator signal by generating a reference signal that has a frequency related to the predetermined scanning rates of the video signal (col 3, line 1-12).

Henderson discloses that the color subcarrier which is 3.58 Mhz (from 3.5795...Mhz) of the NTSC signal (calculated by $455 \times \frac{1}{2} \times$ approximately 15,734 Hz) introduces a problem when deriving the reference frequency of the phase locked loop since there is no integer divider which may be used to convert the

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color subcarrier frequency to an odd submultiple of the horizontal line scanning rate. Henderson remedies this problem by obtaining integer frequencies, since divider which divide by fractional divisors are relatively complex and therefore relatively expensive.

Therefore, the examiner's position is it would have been obvious to one of ordinary skill in the art at the to modify Martinez which discloses the visual cancellation of any alien signal superimposed upon the NTSC by rounding the calculated number (either up or down) to an integer number, in order to provide a relatively simple/inexpensive method of generating the signal via non-fractional dividers as performed by Henderson.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.


For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

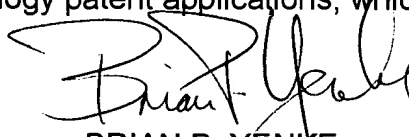
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PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y.
04 June 2004



BRIAN P. YENKE
Primary Examiner
Art Unit 2614